

CLAIMS

1. A device for producing container blanks (2) from
5 a material web (3), comprising
a plurality of tools (5) supported by a rotary tool
holder (4), which on rotation is arranged to move each
tool (5) along
a working path (WP) along which each tool (5) is
10 engageable with the material web (3) for joining of oppo-
site wall portions of the material web (3) along connect-
ing portions (11), and
a return path (RP) along which each tool (5) is dis-
engageable from the material web (3),
15 each tool (5) being arranged to be moved together
with the material web (3) when the tool (5) is moved
along said working path (WP), and
said tool holder (4) acting as a deflecting means
for the material web (3) when this moves together with
20 the respective tools (5) along said working path (WP).
2. A device as claimed in claim 1, in which each
tool (5) is operable between a closed position and an
open position, the tool (5) being movable to said closed
25 position to provide said engagement with the material web
(3).
3. A device as claimed in claim 2, in which each
tool (5) comprises a base element (6) which is fixedly
30 mounted on the tool holder (4) and an engaging element
(7) which is pivotable relative to the base element (6).
4. A device as claimed in claim 3, in which at least
one of the base element (6) and the engaging element (7)
35 of each tool (5) supports a rib (12), which is arranged
to engage the material web (3) in the closed position of
the tool (5).

5. A device as claimed in claim 4, in which said rib (12) of each tool (5) has an extent that corresponds to the extent of the connecting portion (11) of a container blank (2).

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6. A device as claimed in claim 4 or 5, in which said rib (12) is supported by an arrangement involving springs (38), which when moving the tool (5) to said closed position are arranged for a given compression.

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7. A device as claimed in any one of the preceding claims, in which each tool (5) is arranged to provide said joining by heat sealing.

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8. A device as claimed in any one of the preceding claims, further comprising a control means (18) which is arranged to engage said tool (5) with, and disengage the same from, the material web (3).

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20 9. A device as claimed in claim 8, in which the control means (18) comprises a link mechanism (20) for each of the tools (5) and a stationary cam structure (19), each tool (5) being connected to the cam structure (19) by said link mechanism (20) and the cam structure (16) 25 being arranged, during rotation of the tool holder (4), to control each tool (5) to be closed and opened, respectively.

10. A device as claimed in claim 8, in which each
30 link mechanism (20) comprises an articulated link arm
(25) which is arranged in an over-centred position.

11. A device as claimed in claim 9 or 10 when referring back to claim 6, in which each link mechanism (20) comprises a roll (23) which is held in a cam groove (24) of the cam structure (19), a sensor being arranged in the cam groove (24) for sensing the force by which the roll

(23) abuts against a bearing surface of the cam groove (24).

12. A device as claimed in any one of the preceding
5 claims, in which the tool holder (4) is rotatably mounted
on one side.

13. A device as claimed in any one of the preceding
claims, further comprising a punching station (10), which
10 is arranged downstream of the tool holder (4) and arranged
to punch container blanks (5) along said connecting
portions (11).

14. A device as claimed in claim 13, in which said
15 punching station (10) is arranged for such punching that
a succession of container blanks (2) are connected to
each other to form a continuous web (17) of container
blanks (2).

20 15. A device as claimed in any one of the preceding
claims, in which the tool holder (4) in operation is
arranged for continuous rotation.

16. A device as claimed in any one of the preceding
25 claims, further comprising a registering mechanism (13) positioned upstream of the tool holder (4) and adapted to sense the tension in the material web (3) and to adjust said tension according to a predetermined value.

30 17. A method for producing container blanks (2) from a material web (3) by joining opposite wall portions of the material web (3) along connecting portions (11), comprising

deflecting said material web (3) over a tool holder (4),
35 rotating the tool holder (4) to move tools (5) supported by the same along a working path (WP), and

by continued rotation of the tool holder (4), moving the tools (5) along a return path (RP) to the beginning of said working path (WP),

5 each tool, for providing said joining, being engaged with the material web (5) and moved together with said material web (3) during the movement of the tool (5) along said working path (WP).

10 18. A method as claimed in claim 17, wherein the material web (3) is folded to a web folded longitudinally in the form of a W.

15 19. A method as claimed in claim 17 or 18, wherein each tool (5) is engaged with the material web (3) by pivoting an engaging element (7) downwards to a base element (6) for clamping the material web (3) therebetween.

20 20. A method as claimed in any one of claims 17-19, in which said tool holder (4) is rotated continuously to provide continuous production of container blanks (2).

21. A method as claimed in any one of claims 17-19, in which the tool holder (4) is rotated in an indexing motion.